

Amendment to the Claims:

This listing of claims shall replace all prior versions and listings of claims.

Listing of Claims:

Claims 1-26 (canceled)

Claim 27 (currently amended) An isolated nucleic acid molecule comprising at least 50 contiguous nucleotides of nucleotides 626 to 1260 of SEQ ID NO:1, or the completely complementary strand thereto.

Claim 28 (previously presented) The isolated nucleic acid molecule of claim 27, wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of nucleotides 626 to 1260 of SEQ ID NO:1.

Claim 29 (currently amended) The isolated nucleic acid molecule of claim 27, wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of the completely complementary strand of nucleotides 626 to 1260 of SEQ ID NO:1.

Claim 30 (previously presented) The isolated nucleic acid molecule of claim 27, wherein said polynucleotide sequence comprises a heterologous polynucleotide sequence.

Claim 31 (previously presented) The isolated nucleic acid molecule of claim 30, wherein said heterologous polynucleotide sequence encodes a heterologous polypeptide.

Claim 32 (canceled)

Claim 33 (previously presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 27.

Claim 34 (previously presented) The recombinant vector of claim 33, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 35 (previously presented) A recombinant host cell comprising the isolated nucleic acid molecule of claim 27.

Claim 36 (previously presented) The recombinant host cell of claim 35, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 37 (previously presented) A method for producing a polypeptide, comprising:

- (a) culturing a host cell under conditions suitable to produce a polypeptide encoded by the nucleic acid molecule of claim 28; and
- (b) recovering the polypeptide from the cell culture.

Claims 38-63 (canceled)

Claim 64 (currently amended) An isolated nucleic acid molecule comprising at least 50 contiguous nucleotides of the coding sequence of the human cDNA contained in ATCC Deposit No. 75844, or the completely complementary strand thereto.

Claim 65 (previously presented) The isolated nucleic acid molecule of claim 64, wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of the coding sequence of the human cDNA contained in ATCC Deposit No. 75844.

Claim 66 (currently amended) The isolated nucleic acid molecule of claim 64, wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of the completely complementary strand of the coding sequence of the human cDNA contained in ATCC Deposit No. 75844.

Claim 67 (previously presented) The isolated nucleic acid molecule of claim 64, wherein said polynucleotide sequence comprises a heterologous polynucleotide sequence.

Claim 68 (previously presented) The isolated nucleic acid molecule of claim 67, wherein said heterologous polynucleotide sequence encodes a heterologous polypeptide.

Claim 69 (canceled)

Claim 70 (previously presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 64.

Claim 71 (previously presented) The recombinant vector of claim 70, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 72 (previously presented) A recombinant host cell comprising the isolated nucleic acid molecule of claim 64.

Claim 73 (previously presented) The recombinant host cell of claim 72, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 74 (previously presented) A method for producing a polypeptide, comprising:

- (a) culturing a host cell under conditions suitable to produce a polypeptide encoded by the nucleic acid molecule of claim 65; and
- (b) recovering the polypeptide from the cell culture.

Claim 75 (previously presented) A method of using the polynucleotide of claim 27 to detect a nucleic acid molecule in a biological sample which hybridizes thereto comprising:

- (a) obtaining a biological sample suspected of containing said nucleic acid molecule;
- (b) contacting said biological sample with said polynucleotide under conditions suitable for hybridization of said polynucleotide to said nucleic acid molecule; and
- (c) determining the presence or absence of said nucleic acid molecule in said biological sample.

Claim 76 (previously presented) A method of using the polynucleotide of claim 66 to detect a nucleic acid molecule in a biological sample which hybridizes thereto comprising:

- (a) obtaining a biological sample suspected of containing said nucleic acid molecule;
- (b) contacting said biological sample with said polynucleotide under conditions suitable for hybridization of said polynucleotide to said nucleic acid molecule; and
- (c) determining the presence or absence of said nucleic acid molecule in said biological sample.

Claim 77 (new) An isolated nucleic acid molecule comprising a polynucleotide sequence encoding a polypeptide selected from the group consisting of:

- (a) amino acids 1 to 212 of SEQ ID NO:2;
- (b) amino acids 2 to 212 of SEQ ID NO:2;
- (c) amino acids 59-73 of SEQ ID NO:2;
- (d) an amino acid sequence of the full-length polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844;
- (e) an amino acid sequence of the full-length polypeptide, excluding the N-terminal methionine, encoded by the cDNA contained in ATCC Deposit No. 75844; and
- (f) an amino acid sequence of the purine-binding motif of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844.

Claim 78 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence encoding a polypeptide sequence is (a).

Claim 79 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence encoding a polypeptide sequence is (b).

Claim 80 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence encoding a polypeptide sequence is (c).

Claim 81 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence encoding a polypeptide sequence is (d).

Claim 82 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence encoding a polypeptide sequence is (e).

Claim 83 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence encoding a polypeptide sequence is (f).

Claim 84 (new) The isolated nucleic acid molecule of claim 77, wherein said polynucleotide sequence comprises a heterologous polynucleotide sequence.

Claim 85 (new) The isolated nucleic acid molecule of claim 84, wherein said heterologous polynucleotide sequence encodes a heterologous polypeptide sequence.

Claim 86 (new) A recombinant vector comprising the isolated nucleic acid molecule of claim 77.

Claim 87 (new) The recombinant vector of claim 86, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 88 (new) A recombinant host cell comprising the isolated nucleic acid molecule of claim 77.

Claim 89 (new) The recombinant host cell of claim 88, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 90 (new) A method of producing a polypeptide, comprising:

- (a) culturing a host cell under conditions suitable to produce a polypeptide encoded by the nucleic acid molecule of claim 77; and
- (b) recovering the polypeptide from the cell culture.

Claim 91 (new) An isolated nucleic acid molecule consisting of a polynucleotide sequence encoding a polypeptide selected from the group consisting of:

- (a) at least 30 contiguous amino acid residues of amino acids 1 to 212 of SEQ ID NO:2;
- (b) at least 50 contiguous amino acid residues 1 to 212 of SEQ ID NO:2;
- (c) at least 30 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844; and
- (d) at least 50 contiguous amino acid residues of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844.

Claim 92 (new) The isolated nucleic acid molecule of claim 91, wherein said polynucleotide sequence encoding a polypeptide sequence is (a).

Claim 93 (new) The isolated nucleic acid molecule of claim 91, wherein said polynucleotide sequence encoding a polypeptide sequence is (b).

Claim 94 (new) The isolated nucleic acid molecule of claim 91, wherein said polynucleotide sequence encoding a polypeptide sequence is (c).

Claim 95 (new) The isolated nucleic acid molecule of claim 91, wherein said polynucleotide sequence encoding a polypeptide sequence is (d).

Claim 96 (new) The isolated nucleic acid molecule of claim 91, wherein said polynucleotide sequence comprises a heterologous polynucleotide sequence.

Claim 97 (new) The isolated nucleic acid molecule of claim 96, wherein said heterologous polynucleotide sequence encodes a heterologous polypeptide sequence.

Claim 98 (new) A recombinant vector comprising the isolated nucleic acid molecule of claim 91.

Claim 99 (new) The recombinant vector of claim 98, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 100 (new) A recombinant host cell comprising the isolated nucleic acid molecule of claim 91.

Claim 101 (new) The recombinant host cell of claim 100, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 102 (new) A method of producing a polypeptide, comprising:

- (a) culturing a host cell under conditions suitable to produce a polypeptide encoded by the nucleic acid molecule of claim 91; and
- (b) recovering the polypeptide from the cell culture.

Claim 103 (new) An isolated nucleic acid molecule comprising a polynucleotide sequence encoding a polypeptide selected from the group consisting of:

- (a) an amino acid sequence which is at least 90% identical to amino acids 1 to 212 of SEQ ID NO:2;
- (b) an amino acid sequence which is at least 95% identical to amino acids 1 to 212 of SEQ ID NO:2;
- (c) an amino acid sequence which is at least 90% identical to the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844; and
- (d) an amino acid sequence which is at least 95% identical to the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844;

wherein said polypeptide has hypoxanthine (guanine) phosphoribosyl transferase-2 (HPRT-2) activity.

Claim 104 (new) The isolated nucleic acid molecule of claim 103, wherein said polynucleotide sequence encoding a polypeptide sequence is (a).

Claim 105 (new) The isolated nucleic acid molecule of claim 103, wherein said polynucleotide sequence encoding a polypeptide sequence is (b).

Claim 106 (new) The isolated nucleic acid molecule of claim 103, wherein said polynucleotide sequence encoding a polypeptide sequence is (c).

Claim 107 (new) The isolated nucleic acid molecule of claim 103, wherein said polynucleotide sequence encoding a polypeptide sequence is (d).

Claim 108 (new) The isolated nucleic acid molecule of claim 103, wherein said polynucleotide sequence comprises a heterologous polynucleotide sequence.

Claim 109 (new) The isolated nucleic acid molecule of claim 108, wherein said heterologous polynucleotide sequence encodes a heterologous polypeptide sequence.

Claim 110 (new) A recombinant vector comprising the isolated nucleic acid molecule of claim 103.

Claim 111 (new) The recombinant vector of claim 110, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 112 (new) A recombinant host cell comprising the isolated nucleic acid molecule of claim 103.

Claim 113 (new) The recombinant host cell of claim 112, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 114 (new) A method of producing a polypeptide, comprising:

- (a) culturing a host cell under conditions suitable to produce a polypeptide encoded by the nucleic acid molecule of claim 103; and
- (b) recovering the polypeptide from the cell culture.

Claim 115 (new) An isolated nucleic acid molecule comprising a polynucleotide sequence encoding a polypeptide selected from the group consisting of:

- (a) a fragment of amino acids 1 to 212 of SEQ ID NO:2;
- (b) a fragment comprising at least amino acids 59-73 of SEQ ID NO:2;
- (c) a fragment of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844; and
- (d) a fragment comprising at least the purine-binding motif of the polypeptide encoded by the cDNA contained in ATCC Deposit No. 75844;

wherein said polypeptide has HPRT-2 activity.

Claim 116 (new) The isolated nucleic acid molecule of claim 115, wherein said polynucleotide sequence encoding a polypeptide sequence is (a).

Claim 117 (new) The isolated nucleic acid molecule of claim 115, wherein said polynucleotide sequence encoding a polypeptide sequence is (b).

Claim 118 (new) The isolated nucleic acid molecule of claim 115, wherein said polynucleotide sequence encoding a polypeptide sequence is (c).

Claim 119 (new) The isolated nucleic acid molecule of claim 115, wherein said polynucleotide sequence encoding a polypeptide sequence is (d).

Claim 120 (new) The isolated nucleic acid molecule of claim 115, wherein said polynucleotide sequence comprises a heterologous polynucleotide sequence.

Claim 121 (new) The isolated nucleic acid molecule of claim 120, wherein said heterologous polynucleotide sequence encodes a heterologous polypeptide sequence.

Claim 122 (new) A recombinant vector comprising the isolated nucleic acid molecule of claim 115.

Claim 123 (new) The recombinant vector of claim 121, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 124 (new) A recombinant host cell comprising the isolated nucleic acid molecule of claim 115.

Claim 125 (new) The recombinant host cell of claim 124, wherein said nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

Claim 126 (new) A method of producing a polypeptide, comprising:

- (a) culturing a host cell under conditions suitable to produce a polypeptide encoded by the nucleic acid molecule of claim 115; and
- (b) recovering the polypeptide from the cell culture.